REMARKS

This Amendment is in response to the Office action mailed November 26, 2010, which was made final.

Status of the Claims

Claims 14 and 21-39 are pending in the present application. Claims 14, 22 and 34 are amended. Applicant respectfully submits that no new matter is added by these amendments.

Response to Rejections Under 35 U.S.C. § 103(a)

Claims 14, 21, 25, 26, 28, 30 and 36-39 were rejected as allegedly unpatentable over Kiyoshi et al. (JP 09-193501) (hereinafter "Kiyoshi") in view of Cassiano (US PG Pub 2002/0110395) (hereinafter "Cassiano"). Claims 22 and 31-35 were rejected as allegedly unpatentable over Kiyoshi in view of Matsui et al. (JP 60-018377) (hereinafter "Matsui"). Claims 23, 24, and 29 were rejected as allegedly unpatentable over Kiyoshi in view of Cassiano and Shiga et al. (JP 57-163588) (hereinafter "Shiga"). Claim 27 was rejected as allegedly unpatentable over Kiyoshi and Cassiano in further view of Matsui.

Kiyoshi in view of Cassiano

Claims 14, 21, 25, 26, 28, 30 and 36-39 were rejected as allegedly unpatentable over Kiyoshi in view of Cassiano.

Independent Claim 14

Claim 14 recites a printhead assembly comprising: a printhead arranged to print on an image-receiving substrate; a platen; a support; a first frame slideably connected to said support, one of said printhead and said platen being mounted on said first frame; a second frame, the other one of the printhead and the platen being supported on said second frame; a motor configured to drive said first frame relative to said support to cause the one of said printhead and platen to move in a linear direction toward the other, whereby the distance traveled by the first frame relative to said support is controlled by rotation of the motor; and a compressor arranged to exert a biasing force on one of said printhead and said platen, when said motor drives said first frame relative to said support, wherein the compressor is arranged

so as to compressibly support the second frame; and wherein a distance between said first frame and the one of said printhead and said platen is fixed.

The Office action concedes that Kiyoshi fails to teach a compressor arranged to compressibly support the second frame such that it exerts a biasing force on the platen when one of the printhead and the platen abuts said image receiving substrate such that when the motor drives the first frame relative to the support and towards the second frame such that a pressure applied to the image receiving substrate by one of the printhead and platen can be controlled and finally that the distance between the first frame and the one of the print head and platen is fixed. The Office action attempts to find this feature in Cassiano, alleging that it would have been obvious to one of ordinary skill in the art to combine the teachings of Kiyoshi with those of Cassiano. However, the disclosure of Kiyoshi does not provide any motivation or suggestion that would lead one of ordinary skill in the art to combine the teachings of Kiyoshi with those of Cassiano. In fact, the teachings of Kiyoshi teach away from such a combination.

In order to read Kiyoshi onto the presently pending claim 14, the Office action necessarily considered the platen 2 as being mounted on the second frame. The Office action conceded that Kiyoshi does not show the platen attached to a frame, but indicated that it is implicit that the platen would need to be attached to some kind of frame. However, one of ordinary skill in the art would not have added a spring or other form of compressor to such a "frame." There is no discussion in Kiyoshi that would encourage one of ordinary skill in the art to add such a spring to a frame. In fact, Kiyoshi teaches away from placing a compressor on the platen frame. Throughout Kiyoshi, it is discussed that miniaturizing the printer is an object of the invention (see, for example, paragraph 9). One of ordinary skill in the art would, therefore, be taught away from adding a further component in the form of a compressor to the platen frame because this would result in an increase in the size of the printer, contrary to the stated objectives of Kiyoshi.

Furthermore, Kiyoshi discusses, at numerous points, that an additional objective of the disclosed invention is to accurately position the platen within the printing device (see, for example, paragraph 13 and paragraph 41). As one of ordinary skill in the art would be aware, there are variations in spring rates even within the same manufacturing batch. Similarly,

wear of the compressor over time may cause additional variations in spring rates. One of ordinary skill in the art would expect that the addition of a compressor to the platen frame would cause uncertainty as to the position of the platen within the printing device. One of ordinary skill in the art would, therefore, be taught away from adding a compressor to the platen frame because such an addition would make it more difficult to accurately position the platen because of variations in spring rates between different springs. For at least these reasons, it would not have been obvious to one of ordinary skill in the art to combine the teachings of Kiyoshi with those of Cassiano.

Moreover, Applicant further submits that Kiyoshi fails to teach "a motor configured to drive said first frame relative to said support to cause the one of said printhead and platen to move in a linear direction toward the other." Kiyoshi, instead, teaches that the motor 20 drives a cam shaft 18 to which is connected cam 17. The spring 10 then provides the driving force to move the thermal head, and the extent to which the spring moves the thermal head is dependent upon the amount by which the cam 17 has rotated. Therefore, in Kiyoshi the spring 10 drives the thermal head which is attached to frame 8, and the role of the motor is more akin to a brake. Thus, Kiyoshi does not teach or disclose at least "a motor configured to drive said first frame relative to said support to cause the one of said printhead and platen to move in a linear direction toward the other."

Furthermore, as discussed in response to the Office action dated September 30, 2010, Cassiano fails to teach or disclose "a motor configured to drive said first frame relative to said support to cause the one of said printhead and platen to move in a linear direction toward the other." In Cassiano, the carriage 19 which carries the printhead is translated along bar 18 through operation of a motor. However, this translational movement of the printhead does not "cause the one of said printhead and platen to move in a linear direction towards the other," as in Cassiano this function is also provided by springs 23 and 25. Therefore, Cassiano does not teach or disclose "a motor configured to drive said first frame relative to said support to cause the one of said printhead and platen to move in a linear direction toward the other."

Therefore, it is respectfully submitted that no combination of Kiyoshi and Cassiano could lead a person of ordinary skill in the art to the printhead assembly claimed in claim 14.

Any proper combination of Kiyoshi and Cassiano by one of ordinary skill in the art would necessarily lack at least "a motor configured to drive said first frame relative to said support to cause the one of said printhead and platen to move in a linear direction toward the other."

For at least these reasons, Applicant respectfully submits that claim 14 is patentably distinguishable over Kiyoshi in view of Cassiano. Withdrawal of the rejection is respectfully requested.

Dependent claims 21, 28, 30, 36, and 37 depend from independent claim 14. Therefore, for at least the same reasons as claim 14, Applicant respectfully submits that claims 21, 28, 30, 36, and 37 are patentably distinguishable over Kiyoshi in view of Cassiano. Withdrawal of the rejections is respectfully requested.

Independent Claim 23

Claim 23 recites a printer comprising: an input device for inputting data; a printhead arranged to print on an image-receiving substrate; a platen; a support; a first frame slideably connected to said support, one of said printhead and platen being mounted on said first frame; a second frame, the other one of the printhead and the platen being supported on said second frame; a motor configured to drive said first frame relative to said support to cause the one of said printhead to move in a linear direction toward the other, whereby the distance traveled by the first frame relative to said support is controlled by rotation of the motor; and a compressor arranged to exert a biasing force on one of said printhead and said platen, when said motor drives said first frame relative to said support, wherein the compressor is arranged so as to compressibly support the second frame; and wherein a distance between said first frame and the one of said printhead and said platen is fixed.

For at least those reasons described above with respect to claim 14, Applicant respectfully submits that one of ordinary skill would not have been led to combine the teachings of Kiyoshi with those of Cassiano to arrive at the presently pending claims and, in fact, would have been taught away from such a combination by the teachings of Kiyoshi. Furthermore, Applicant respectfully submits that no combination of Kiyoshi and Cassiano could lead a person of ordinary skill in the art to the printer of claim 23. Therefore, for at

least those reasons described above with respect to claim 14, Applicant respectfully submits that claim 23 is patentably distinguishable over Kiyoshi in view of Cassiano. Withdrawal of the rejection is respectfully requested.

Independent Claim 25

Claim 25 recites a method of controlling a printhead assembly comprising: a printhead arranged to print on an image-receiving substrate; a platen; a support; a first frame slideably connected to said support, one of said printhead and said platen being mounted on said first frame; a second frame, the other one of the printhead and platen being supported on said second frame; a motor configured to drive said first frame relative to said support to cause the one of said printhead and platen to move in a linear direction toward the other, whereby the distance traveled by the first frame relative to said support is controlled by rotation of the motor; and a compressor arranged to exert a biasing force on one of said printhead and said platen; wherein the compressor is arranged so as to compressibly support the second frame; and wherein a distance between said first frame and the one of said printhead and said platen is fixed; wherein said method comprises the step of: controlling the motor to drive said first frame relative to said support and towards said second frame when said printhead and said platen abuts said image receiving substrate, to cause said compressor to exert a biasing force on one of said printhead and said platen, such that a pressure applied to the image receiving substrate by said one of said printhead and said platen can be controlled.

For at least those reasons described above with respect to claim 14, Applicant respectfully submits that one of ordinary skill in the art would not have been led to combine the teachings of Kiyoshi with those of Cassiano to arrive at the presently pending claims and, in fact, would have been taught away from such a combination. Furthermore, Applicant respectfully submits that no combination of Kiyoshi and Cassiano could lead a person of ordinary skill in the art to the method of claim 25. Therefore, for at least those reasons described above with respect to claim 14, Applicant respectfully submits that claim 25, as amended, is patentably distinguishable over Kiyoshi in view of Cassiano. Withdrawal of the rejection is respectfully requested.

Dependent claim 26 depends from independent claim 25. Therefore, for at least the same reasons, dependent claim 26 is likewise believed to be patentable.

Kiyoshi in view of Matsui

Claims 22 and 31-35 were rejected as allegedly unpatentable over Kiyoshi in view of Matsui.

Independent Claim 22

Claim 22, as amended, recites a label printing device comprising: a printhead arranged to print on an image-receiving substrate; a platen; a support; a first frame slideably connected to said support, one of said printhead and said platen being mounted on said first frame; a detecting device configured to detect information stored on one of the image receiving substrate and a cassette holding the image receiving substrate; a driver configured to drive said first frame relative to said support in accordance with said information stored with said image receiving substrate, to cause the one of said printhead and platen to move in a linear direction toward the other; and a processor configured to use a look up table to determine a distance to drive the first frame relative to the support based on the information stored with the image receiving substrate.

The Office action concedes that Kiyoshi does not disclose a detecting device for detecting information stored with the image receiving substrate, and a processor configured to use a look up table to determine a distance to drive the first frame relative to the support based on the information.. The Office action attempts to find the missing elements in the teachings of Matsui.

The Office action indicates that the "input device" of Matsui is equivalent to the "detecting device" of the claims, in as much as an input device detects information which is input. However, claim 22, as amended, recites that the information is "stored on one of the image receiving substrate and a cassette holding the image receiving substrate." Applicant respectfully submits that the Office action did not point to any disclosure in Matsui that teaches or suggests that a detecting device detects information "stored on one of the image receiving substrate and a cassette holding the image receiving substrate." Applicant further submits that Matsui does not teach or disclose this feature.

For at least these reasons, no combination of Kiyoshi and Matsui would lead a person of ordinary skill in the art to the label printing device of claim 22. Any combination of the teachings of Kiyoshi and Matsui would necessarily lack at least the elements of "a detecting device configured to detect information stored on one of the image receiving substrate and a cassette holding the image receiving substrate." For at least these reasons, it is respectfully submitted that claim 22, as amended, is patentably distinguishable over Kiyoshi in view of Matsui. Withdrawal of the rejection is respectfully requested.

Dependent claims 31-33 depend from independent claim 22. For at least the same reasons as claim 22, Applicant respectfully submits that claims 31-33 are patentably distinguishable over Kiyoshi in view of Matsui. Withdrawal of the rejection is respectfully requested.

Independent Claim 34

Claim 34, as amended, recites a method of controlling a label printer comprising: a printhead arranged to print on an image-receiving substrate; a platen; a support; and a first frame slideably connected to said support, one of said printhead and said platen being mounted on said first frame; wherein said method comprises driving said first frame relative to said support in accordance with information stored on one of the image receiving substrate and a cassette holding the image receiving substrate; and wherein said method comprises driving said first frame relative to said support in accordance with said information stored on one of said image-receiving substrate and said cassette holding the image receiving substrate, to cause the one of said printhead and said platen to move in a linear direction toward the other; and wherein the method comprises using a look up table to determine the distance to drive the first frame relative to the support based on the information stored with the image-receiving substrate.

For at least those reasons described above with respect to claim 22, Applicant respectfully submits that no combination of Kiyoshi and Matsui could lead a person of ordinary skill in the art to the method of claim 34. Therefore, for at least those reasons described above with respect to claim 22, Applicant respectfully submits that claim 34, as

amended, is patentably distinguishable over Kiyoshi in view of Matsui. Withdrawal of the rejection is respectfully requested.

Dependent claim 35 depends from independent claim 34. Therefore, for at least the same reasons, dependent claim 34 is likewise believed to be patentable.

Kiyoshi in view of Cassiano and Shiga

Claims 23, 24, and 29 were rejected as allegedly unpatentable over Kiyoshi in view of Cassiano and Shiga.

Independent Claim 23

Claim 23 recites a printer comprising: an input device for inputting data, a printhead arranged to print on an image-receiving substrate; a platen; a support; a first frame slideably connected to said support, one of said printhead and platen being mounted on said first frame; a second frame, the other one of the printhead and the platen being supported on said second frame; a motor configured to drive said first frame relative to said support to cause the one of said printhead to move in a linear direction toward the other, whereby the distance traveled by the first frame relative to said support is controlled by rotation of the motor; and a compressor arranged to exert a biasing force on one of said printhead and said platen, when said motor drives said first frame relative to said support, wherein the compressor is arranged so as to compressibly support the second frame; and wherein a distance between said first frame and the one of said printhead and said platen is fixed.

For at least those reasons described above with respect to independent claim 14, Applicant respectfully submits that one of ordinary skill would not have been led to combine the teachings of Kiyoshi with those of Cassiano and, in fact, would have been taught away from such a combination. Furthermore, for at least those reasons described above with respect to independent claim 14, Applicant respectfully submits that neither Kiyoshi nor Cassiano, alone or in combination, teaches or discloses "a motor configured to drive said first frame relative to said support." Still further, Shiga does not teach or disclose this feature. Therefore, any proper combination of Kiyoshi and Cassiano in view of Shiga would necessarily lack at least "a motor configured to drive said first frame relative to said support."

Thus, independent claim 23 is patentably distinguishable over the combination of Kiyoshi and Cassiano in view of Shiga. Withdrawal of the rejection is respectfully requested.

Dependent claim 24 depends from independent claim 23 and, therefore, recites, by reference, "a motor configured to drive said first frame relative to said support." Therefore, for at least the same reasons, dependent claim 24 is likewise believed to be patentable.

Dependent claim 29 depends from independent claim 14 and, therefore, recites, by reference, "a motor configured to drive said first frame relative to said support." Therefore, for at least the same reasons as independent claim 14, dependent claim 29 is likewise submitted to be patentable.

Kiyoshi and Cassiano in further view of Matsui

Claim 27 was rejected as allegedly unpatentable over Kiyoshi and Cassiano in further view of Matsui.

Dependent Claim 27

Dependent claim 27 depends from independent claim 25 and, therefore, recites, by reference "a motor configured to drive said first frame relative to said support." For at least those reasons discussed above with respect to independent claim 25, Applicant respectfully submits that one of ordinary skill in the art would not have been led to combine the teachings of Kiyoshi with those of Cassiano and, in fact, would have been taught away from such a combination by the teachings of Kiyoshi. Furthermore, for at least those reasons discussed above with respect to independent claim 25, Applicant respectfully submits that any proper combination of Kiyoshi and Cassiano with necessarily lack at least the feature "a motor configured to drive said first frame relative to said support." Moreover, Matsui does not teach or disclose this feature. Therefore, any proper combination of the teachings of Kiyoshi and Cassiano in view of Matsui will lack at least this feature. Thus, dependent claim 27 is patentably distinguishable over Kiyoshi and Cassiano in view of Matsui. Withdrawal of the rejection is respectfully requested.

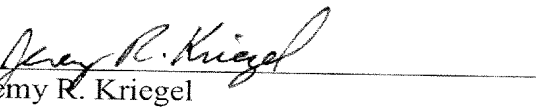
Conclusion

For the foregoing reasons, it is respectfully submitted that claims 14 and 21-39 are in condition for allowance. If the Examiner has any questions that might be resolved by telephone, he is invited to contact the Applicant's undersigned representative at (312) 474-6300.

In the event that any additional fees are due, kindly charge the cost thereof to our deposit account, 13-2855.

Dated: February 28, 2011

Respectfully submitted,

By 

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